



In re application of:	Stephen Melvin Enric Musoll Mario D. Nemirovsky
Serial No.:	09/933934
Filed:	08/20/01
Docket:	MIPS.0178-00-US
For:	METHOD FOR ALLOCATING MEMORY SPACE FOR LIMITED PACKET HEAD AND/OR TAIL GROWTH

**INFORMATION DISCLOSURE STATEMENT  
SUBMITTED UNDER 37 CFR 1.97(D) AND 1.97 (E)(2)**

- 5 Attached hereto is Form PTO-1449 listing documents believed relevant to the subject application. It is respectfully requested that the Examiner review the information disclosed herein in detail, independently evaluate each item carefully in the consideration of the pending claims and return an initialed copy of each form to the undersigned.

10 This disclosure statement should not be construed as a representation that a search has been made, that no other material information as defined in 37 C.F.R. § 1.56(a) exists, or as an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b) or is available as a reference under 35 U.S.C. § 102 *et seq.* Applicant reserves the right to swear behind or otherwise disprove the allege "prior" nature of any art cited should the facts support and the situation warrant such an action.

- 15 It is believed that this disclosure complies with the requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98, and the Manual of Patent Examining Procedures § 609. If for some reason the examiner considers otherwise, it is respectfully requested that the undersigned be called so that any deficiencies can be remedied.

A copy of each document is enclosed. Some of the documents may have markings thereon. No significance is intended to be attached to the markings.

- 20 Applicant is also resubmitting an Information Disclosure Statement, originally filed on 4/13/04 with acknowledged receipt by the PTO. Applicant is resubmitting this IDS because it did not appear in the Examiner's Notice of Allowance, with the Examiner's initials.

Respectfully submitted,

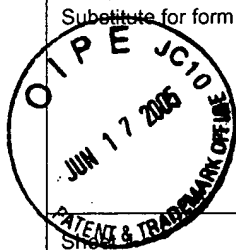
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James W. Huffman  
Huffman Law Group, Inc.  
30 Registration No. 35,549  
1832 N. Cascade Ave.  
Colorado Springs, CO 80907  
719.475.7103  
719.623.0141 fax  
35 jim@huffmanlaw.net

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I hereby certify that this paper is being deposited with the U.S. Postal Service Express Mail Post Office to Addressee Service under 37 C.F.R. §1.10 on the date shown above and is addressed to the U.S. Commissioner of Patents and Trademarks, Washington, D.C. 20231.	
By:	<u>SACIA HENNER</u>

Substitute for form 1449-PTO



# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

## Complete if Known

Application Number	09/933934
Filing Date	08/20/01
First Named Inventor	Stephen Melvin
Art Unit	2662
Examiner Name	KIZOU, HASSAN
Attorney Docket Number	MIPS.0178-00-US

Sheet	1	of	3
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Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		4200927	04-29-1980	Huges et al.	
		5708814	1-13-1998	Short et al.	
		5724565	03-03-1998	Dubey et al.	
		5784649	07-21-1998	Begur et al.	
		6460105	10-01-2001	Jones et al.	
		6529515	03-04-2003	Raz et al.	
		6523109	02-18-2003	Stephan G. Meier	
		6640248	10-28-2003	Jacob W. Jorgensen	
		6625808	09-23-2003	David R. Tarditi	
		6738371	05-18-2004	Lawrence Ayres	
		6738378	05-18-2004	Tuck, III et al.	
		6813268	11-02-2004	Kalkunte et al.	
		6535905	03-18-2003	Kalafatis et al.	
		20010004755	06-21-2001	Levy et al.	
		20010005253	06-28-2001	Hiroshi Komatsu	
		20010052053	12-13-2001	Nemirovsky et al.	
		20010043610	11-22-2001	Nemirovsky et al.	
		20020016883	02-07-2002	Musoll et al.	
		20020049964	04-25-2002	Takayama et al.	
		20020083173	06-27-2002	Musoll et al.	
		20020071393	06-13-2002	Enric Musoll	
		09/608,750	NA	Nemirovsky et al.	
		5559970	09-24-1996	Vinod Sharma	
		6614796	09-02-2003	Black et al.	

## FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	AA	WO 03/005645A2	06-25-2002	Sampath et al.		

Examiner Signature	Date Considered
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\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 27 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this

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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	BA	MELVIN ET AL., "Extended Instruction Set for a Packet Processing Applications," July 5, 2001, Disclosure Document #496559, USPTO	
	BB	MUSOLL ET AL., "Hardware Algorithm for Allocating and De-Allocating Consecutive Blocks of Memory," April 3, 2001, Disclosure Document #491557, USPTO	
	BC	MUSOLL ET AL., "Mechanism to Overflow Packets to a Software Controlled Memory When They Do Not Fit into a Hardware Controlled Memory," July 3, 2001, Disclosure Document #496391, USPTO	
	BD	MUSOLL ET AL., "Mechanism to Activate a Context When No Stream is Running in a Multi-Streaming Processing Core," April 16, 2001, Disclosure Document #492431, USPTO	
	BE	MUSOLL, ENRIC, "Functional Validation of a Packet Management Unit," May 18, 2001, Disclosure Document #429011, USPTO	
	BF	SAMPATH ET AL., "Mechanism to Un-speculatively Pre-fetch Instructions from the Thread Associated to a Packet," April 2, 2001, Disclosure Document #491527, USPTO	
	BG	YAMAMOTO, WAYNE. An Analysis of Multistreamed, Superscalar Processor Architectures. University of California Santa Barbara Dissertation. December 1995. Santa Barbara, US.	
	BH	YAMAMOTO ET AL. "Increasing Superscalar Performance Through Multistreaming." Parallel Architectures and Compilation Techniques (PACT '95). 1995	
	BI	The PowerPC Architecture: A Specification for a New Family of RISC Processors. 2 <sup>nd</sup> Ed. May 1994. pp. 70-72. Morgan Kaufmann. San Francisco, US.	
	BJ	MC68020 32-Bit Microprocessor User's Manual. 3 <sup>rd</sup> Ed.. 1989. pp. 3-125, 3-126, and 3-127. Prentice Hall, NJ, US.	
	BK	POTEL, M. J. "Real-Time Playback in Animation Systems." Proceedings of the 4 <sup>th</sup> Annual Conference on Computer Graphics and Interactive Techniques. 1977. pp. 72-77. San Jose, CA, US.	
	BL	ARM Architecture Reference Manual. 1996. pp. 3-41, 3-42, 3-43, 3-67, and 3-68. Prentice Hall, NJ, US.	
	BM	MUSOLL ET AL. Mechanism to Prevent the Download of a Packet with Pending Writes Affecting Its Data. April 11, 2001. Disclosure Document #492430, USPTO	
Examiner Signature			Date Considered

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<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

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	BN	ESA/390 Principles of Operation. IBM Online Publications Center Reference Number SA22-7201-08. Table of Contents and paras. 7.5.31 and 7.5.70. IBM Corporation. Boulder, CO, US.	
	BO	MC88110 Second Generation RISC Microprocessor User's Manual. 1991. pp. 10-66, 10-67, and 10-71. Motorola, Inc.	
	BP	DIEFENDORFF ET AL. "Organization of the Motorola 88110 Superscalar RISC Microprocessor." IEEE Journal of Microelectronics. April 1992. pp. 40-63. Vol. 12, No. 2. IEEE. New York, NY, US.	
	BQ	KANE, GERRY. PA-RISC 2.0 Architecture. 1996, pp. 7-106 and 7-107. Prentice Hall. NJ, US.	
	BR	DIEFENDORFF ET AL. "AltiVec Extension to PowerPC Accelerates Media Processing." IEEE Journal of Microelectronics. Vol. 20, No. 2 (2000): pp. 85-95	
	BS	GRUNEWALD ET AL. "Towards Extremely Fast Context Switching in a Block Multithreaded Processor." Proceedings of EUROMICRO 22, 1996. pp. 592-599	
	BT	BRADFORD ET AL. "Efficient Synchronization for Multithreaded Processors." Workshop on Multithreaded Execution, Architecture, and Compilation. Jan-Feb 1998. pp. 1-4	
	BU	PAI ET AL. "An Evaluation of Memory Consistency Models for Shared-Memory Systems with ILP Processors." Proceedings of ASPLOS-VII, Oct. 1996: pp. 12-23, ACM, Inc.	
	BV	YOAZ ET AL. "Speculation Techniques for Improving Load Related Instruction Scheduling." 1999. Pages 42-53, IEEE.	
	BW	KESSLER, R. E. "The Alpha 21264 Microprocessor: Out-of-Order Execution at 600 MHz." August 1998.	
	BX	DONALSON ET AL. "DISC: Dynamic Instruction Stream Computer, An Evaluation of Performance." 26th Hawaii Conference on Systems Sciences. Vol. 1. 1993. Pages 448-456.	
	BY	NEMIROVSKY ET AL. "DISC: Dynamic Instruction Stream Computer." ACM. 1991. Pages 163-171	
	BZ	UNGERER ET AL. A Survey of Processors with Explicit Multithreading. ACM Computing Surveys, Vol., 35, No. 1. March 2003. Pages 29-63.	
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